

## **CATEGORY D – VERTEBRATES OF PUBLIC HEALTH SIGNIFICANCE**

### **PRACTICE QUESTIONS**

1. Plague as it exists in nature in localized foci or as epizootics among wild rodents is called:
  - A. Epidemic plague.
  - B. Sylvatic plague.
  - C. Urban plague.
  - D. Reservoir plague.
2. Until recent years the Norway rat was the major reservoir host of murine typhus in California, where the disease was common in central Los Angeles. However, most murine typhus cases now occur in eastern Los Angeles and Orange Counties, where the principal reservoir is probably the:
  - A. Roof rat.
  - B. Skunk.
  - C. Opossum.
  - D. Wood rat.
3. Permanent rodent control is best achieved by:
  - A. Trapping.
  - B. Poisoning.
  - C. Preventing access to food and harborage.
  - D. Introducing predators.
4. Dense growth of ornamental or other plants, such as Algerian ivy and Himalayan blackberry, are particularly favorable habitats for the:
  - A. Roof rat.
  - B. Norway rat.
  - C. House mouse.
  - D. House cat.
5. The normal life expectancy of house mice is approximately:
  - A. 2 to 3 months.
  - B. 6 to 9 months.
  - C. 1 year.
  - D. 2 years.

6. Which of these statements about domestic rodents is most true?
  - A. The Norway rat rarely constructs burrows.
  - B. The house mouse cannot live outdoors.
  - C. They are poor swimmers.
  - D. The roof rat and house mouse have better climbing ability than the Norway rat.
7. The easiest domestic rodents to trap, because they do not show new object reaction, are the:
  - A. Roof rat.
  - B. House mice.
  - C. Norway rat.
  - D. Opossum.
8. Poisons, traps, and fumigants are method of rodent:
  - A. Prevention.
  - B. Exclusion.
  - C. Suppression.
  - D. Environmental manipulation.
9. The domestic rodent with a head and body length of 7 ½ to 10 inches, a tail usually shorter than the head and body length, a heavy body, blunt muzzle, and relatively small, coarse, close-set ears is most likely the:
  - A. Norway rat.
  - B. Roof rat.
  - C. Wood rat.
  - D. House mouse.
10. The usual home range of the roof rat is:
  - A. 100 – 200 feet or one city block.
  - B. Over 200 feet or several city blocks.
  - C. 50 – 75 feet.
  - D. 10 – 30 feet.

11. The chief feature used to distinguish the rodents from all other mammals is:
- A. A round, scaly-looking and nearly hairless tail.
  - B. Five-toed hind feet.
  - C. One pair of incisor teeth separated from the molars by a long gap.
  - D. Grayish-brown fur and short ears.
12. The rodent disease transmitted by infected fleas feces, which are scratched in the skin is:
- A. Leptospirosis.
  - B. Relapsing Fever.
  - C. Plague
  - D. Murine typhus.
13. The best form of rodent control:
- A. Focuses on killing individual rodents.
  - B. Focuses on controlling an entire population.
  - C. Focuses on killing the queen rodent.
  - D. None of the above.
14. Which of the following is a disadvantage to using pesticides to control for rodents when compared to sanitation and exclusion techniques is:
- A. Pesticides are cheaper.
  - B. Pesticides offer quick results.
  - C. Pesticides are easier to use and carry out.
  - D. Pesticides offer a long-term effect.
15. Painting a white band 6 inches along the base of the walls in a food storage area is recommended to help:
- A. Repel rodents.
  - B. Detect evidence of rodent infestation.
  - C. Show workers how far away from walls to stack food.
  - D. Find and recover unused poison bait.

16. The tendency of rats to avoid a trap or bait when it is first set out in their environment is called:
- A. New object reaction.
  - B. Murine avoidance.
  - C. The repellency effect.
  - D. Bait shyness.
17. Rat populations in sewers are highest where there are numerous:
- A. Breaks in the sewer line.
  - B. Garbage disposal units.
  - C. Domestic connections.
  - D. Manholes.
18. The pesticides that prevent normal clotting of blood are called:
- A. Surfactants.
  - B. Anticoagulants.
  - C. Acute poisons.
  - D. Stomach poisons.
19. A poison gas used to kill rodents is called a:
- A. Residual.
  - B. Synergist.
  - C. Tracking powder.
  - D. Fumigant.
20. The rodent takes the poison in a tracking dust into its body by:
- A. Eating the dust off the floor.
  - B. Licking its feet or fur.
  - C. Tracking the dust into its food.
  - D. Absorbing the dust through its feet.

21. To increase the effectiveness of your poison baits for most rodent control, you should first:
- A. Set traps.
  - B. Exclude rodents.
  - C. Eliminate harborage.
  - D. Remove food and water.
22. Snap traps with expanded triggers are most effective:
- A. For recovery of ectoparasites.
  - B. When placed parallel to walls or objects.
  - C. Close to a feeding area.
  - D. On runways.
23. Rodent infestations in storage areas can be best minimized by:
- A. Stacking bulk foods in large piles with only the edges exposed.
  - B. Placing materials to be protected a minimum of 1 foot above ground level.
  - C. Providing improved harborage for rodents outdoors.
  - D. Eliminating access to storage areas.
24. Domestic rats can:
- A. Climb vertical pipes up to 6 inches in diameter.
  - B. Jump up to 6 feet horizontally.
  - C. Enter through openings larger than ½ inch.
  - D. Burrow to a depth of 6 feet in soil.
25. For the most effective results when trapping:
- A. Use live traps.
  - B. Move traps to new locations daily.
  - C. Place traps close to nesting sites.
  - D. Place traps at least 6 inches away from walls or other objects.

26. To minimize rodent harborage outdoors, materials such as lumber, boxes, and machinery should be:
  - A. Placed in racks with approximately 18 inches clearance above ground.
  - B. Stacked on the ground no closer than 18 inches away from the buildings or fences.
  - C. Placed on pallets.
  - D. Stacked against walls of buildings.
27. The best method for providing long-term control of rats in sewers is to:
  - A. Alternate between acute and anticoagulant poison baits.
  - B. Poison rats after finding and repairing breaks in sewer lines.
  - C. Screen rooftops vents and install flap valves in toilets.
  - D. Use pre-baited acute poison baits.
28. Opossums are:
  - A. Most frequently found in wooded country.
  - B. Active mainly during the daytime.
  - C. Mainly plant feeders.
  - D. Usually difficult to trap.
29. Opossums have been implicated in the transmission of:
  - A. Plague.
  - B. Rabies.
  - C. Relapsing fever.
  - D. Murine typhus.
30. In California, skunks are an important reservoir of:
  - A. Rabies.
  - B. Histoplasmosis.
  - C. Plague.
  - D. Murine typhus.

31. A distinguishing feature of the spotted skunk is its:
  - A. Four irregular white stripes.
  - B. Two broad white stripes from head to tail.
  - C. Widely separated big toe on the hind foot.
  - D. Large size, about the same as a large house cat.
  
32. If poison bait is used to control skunks, it is recommended that it be placed in:
  - A. The animal's burrow.
  - B. Sections of 6-inch diameter pipe or similar confined containers.
  - C. Tree branches or similar above-ground locations.
  - D. Very small quantities that will not harm pets.
  
33. In California, skunks are least commonly found in:
  - A. The south coastal region north to Santa Barbara.
  - B. The Central Valley and surrounding foothills.
  - C. Areas inhabited by man.
  - D. The desert and high mountains.
  
34. The most common pest bat in California is the:
  - A. Hoary bat.
  - B. Brazilian free-tailed bat.
  - C. Pallid bat.
  - D. Ding bat.
  
35. A medium to large sized bat with a densely furred tail membrane that extends to the end of the tail is a:
  - A. Big-eared bat.
  - B. Free-tailed bat.
  - C. Tree bat.
  - D. Brown bat.
  
36. Except for one rare species, all California bats feed on:
  - A. Nectar.
  - B. Insects.
  - C. Fruits and seeds.
  - D. Small mammals and birds.

37. By merely closing up crevices, it is possible to discourage roosting in a building by:
- A. Western big-eared bats.
  - B. Brazilian free-tailed bats.
  - C. Hoary bats.
  - D. Red bats.
38. Hoary bats:
- A. Are not involved in rabies transmission.
  - B. Frequent old downtown buildings and are partial to tile roofs.
  - C. Are solitary and usually roost in trees.
  - D. Are recognized by extremely large ears that extend beyond the nose if laid forward.
39. For exclusion of bats what size mesh should be used?
- A.  $\frac{1}{4}$  or  $\frac{1}{2}$  inch.
  - B.  $\frac{3}{4}$  or 1 inch.
  - C. 1 or 1  $\frac{1}{4}$  inch.
  - D. 1  $\frac{1}{2}$  or 1  $\frac{3}{4}$  inch.
40. A typical symptom exhibited by a rabid bat is:
- A. Foaming at the mouth.
  - B. Aggressive attacks on humans.
  - C. Beginning its flight before dusk.
  - D. Helpless flopping on the ground.
41. Bat droppings resemble mouse droppings except that they:
- A. can be easily crushed into fine fragments.
  - B. Have a glistening wet appearance.
  - C. Are no more than  $\frac{1}{2}$  as large.
  - D. Are found only in cracks or rafters.



42. The most satisfactory method of removing a bat colony in a building is:
  - A. Repellents.
  - B. Bat proofing.
  - C. Fumigation.
  - D. Residual pesticide dusts.
43. Which of the following disease can bats transmit?
  - A. Rabies.
  - B. Chagas Disease.
  - C. Plague.
  - D. All of the above.
44. Pigeon stoppage might utilize  $\frac{1}{4}$  inch mesh hardware cloth because that size:
  - A. Is necessary to exclude flies.
  - B. Keeps the ectoparasites out.
  - C. Will prevent the eggs from falling out of the nest.
  - D. Will also exclude mice and bats.
45. Pigeons may serve as reservoirs of:
  - A. Murine typhus.
  - B. Encephalitis and ornithosis.
  - C. Plague and relapsing fever.
  - D. Rabies and leptospirosis.
46. Pigeon control workers can best protect themselves from fungus spores by:
  - A. Wearing approved respirators.
  - B. Using insect repellents.
  - C. Spraying ectoparasites.
  - D. Working upwind from the problem.
47. Birds can best be discouraged from roosting on building ledges by:
  - A. Building up ledges to a slope greater than 45 degrees.
  - B. Screening nearby windows and vents with chicken wire or hardware cloth.
  - C. Eliminating all food sources close to the building.
  - D. Trapping them and releasing them in outlying areas.

48. Pigeons should not be merely taken away from a problem area and release because they will probably:
- A. Become trap shy.
  - B. Sicken and die when released away from their home range.
  - C. Disperse into smaller flocks.
  - D. Quickly return.
49. Rattlesnakes are likely to be most abundant:
- A. On hot bare ground.
  - B. Where rodents are plentiful.
  - C. In the vicinity of elevated wood piles.
  - D. In redwood forests.
50. Rattlesnakes are:
- A. Most active during the cold months.
  - B. Stopped in their movements by water obstacles.
  - C. Live-bearing animals.
  - D. Unable to inflict a poisonous bite when very young.
51. The facial pits of the rattlesnake:
- A. Increase their sense of smell.
  - B. Detect vibrations in the air.
  - C. Are used by the snakes to identify their mates.
  - D. Detect warm-blooded animals by their temperature.
52. The most effective method of rattlesnake control is:
- A. Organize snake hunts.
  - B. Fumigation of rodent burrows.
  - C. Removal of their food and shelter.
  - D. Use of chemical repellents.

53. The recommendations for a snake proof fence specify that it should be inserted 1 foot in the ground and extend:
- A. At least 1 foot above the ground.
  - B. At least 2 feet above the ground.
  - C. At least 5 feet above the ground with an L-shaped section at the top.
  - D. In an L-shaped section 6 inches outward from the bottom.
54. The following host and vector are important in the suburban California cycle of murine typhus:
- A. Wood rat and conenose bugs.
  - B. Ground squirrel and soft ticks.
  - C. Opossum and cat fleas.
  - D. Deer and the Pajahuello ticks.
55. Removing natural nesting paces for rodents, such as snags, stumps, old logs, and improperly stacked firewood, from around a house or cabin is one way to prevent exposure to the vector of:
- A. Chagas disease.
  - B. Murine typhus.
  - C. Relapsing fever.
  - D. Dutch elm disease.